



REPORT ON EXTRACT OF SYLLABUS CHANGE (2017-18 TO 2021-22)

**DEPARTMENT OF HBS**

% Change in syllabus from JNTUA R-15 to AK19 Autonomous Regulations				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1.	19ABS9904	Chemistry	New Course	55%
2.	19ABS9909	Chemistry Lab	New Course	40%
3.	19AHS9901	Communicative English-1	New Course	90%
4.	19AHS9902	Communicative English-1 Lab	New Course	10%
5.	19ABS9901	Algebra and Calculus	New Course	60%
6.	19ABS9906	Differential Equations and Vector Calculus	New Course	100%
7.	19ABS9902	Applied Physics	New Course	40%
8.	19ABS9907	Applied Physics Lab	New Course	25%

**Chemistry-** Name of the course changed from Engineering Chemistry to chemistry, Two new units were incorporated 1. Structure and bond theory 2. Instrumental Methods and its applications in AK 19 which are relevant to engineering applications.

**Communicative English- 1** Text book lesson content 100% changed, 80% Grammar and Vocabulary similar

**Communicative English-1 Lab** 90% syllabus similar and 10% additional topics included. Summarizing and Note making, Information transfer, Precise writing, Paragraph writing are added.

**Mathematics:**

**19ABS9901:** Name of the Course changed from Mathematics-1 to Algebra and Calculus, three new units were introduced 1. Matrix Operations and Solving system of Linear equations. 2. Quadratic forms and Mean value theorems. 5. Special Functions in AK19 which are basics useful for current engineering technologies.

**19ABS9906:** Name of the Course changed from Mathematics-II to Differential Equations and vector calculus, Five new units were introduced 1. Linear Differential Equations of Higher Order 2. Equations reducible to Linear Differential equations and applications. 3. Partial Differential Equations of First and Higher order. 4. Vector Differentiation. 5. Vector Integration in AK19 which are incorporated according to basics of current industry needs

**Applied Physics (19ABS9902)**

In engineering physics R15 regulation (15A56101) syllabus had to change 40% of AK19 regulation syllabus in Applied physics.

  
HEAD

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## Applied Physics Lab (19ABS9907)

In engineering physics Lab R15 regulation (15A56102) syllabus had to change 25% of AK19 regulation syllabus in Applied physics Lab.

% Change in syllabus from AK19 to AK20 Autonomous Regulations				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1	20AHS9901	Communicative English	New Course	90%
2	20AHS9902	Communicative English Lab	New Course	10%

Communicative English -80% Grammar and Vocabulary similar and additional Vocabulary included in every unit.

Communicative English Lab 90% syllabus is similar, 10% added , AK – 20 Ted talks, Vocabulary, Fun buzz are added activities.



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**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

**REPORT ON EXTRACT OF SYLLABUS CHANGE (2017-18 TO 2021-22)**

<b>% Change in syllabus from JNTUA R-15 to AK19 Autonomous Regulations of B.Tech</b>				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1.	19ABS9912	Transform Techniques and Complex Variables	New course	100
2.	19AHS9903	Communicative English II	New course	100
3.	19AES0505	Internet of Things (IoT)	New course	100
4.	19APC0201	Electrical Circuit Analysis	New course	100
5.	19AMC9903	Environmental Studies	New course	100
6.	19AHS9904	Communicative English II Lab	New course	100
7.	19AES0506	Internet of Things (IoT) Lab	New course	100
8.	19ABS9916	Numerical Methods and Probability	New course	100
9.	19AES0509	Basics of Python Programming	New course	100
10.	19AES0302	Design Thinking and Product Innovation	New course	100
11.	19APC0204	Electrical Machines - I		20
12.	19AMC9901	Biology for Engineers	New course	100
13.	19APR0201	Socially Relevant Projects (15 hours / semester)	New course	100
14.	19APC0205	Electrical Machines - I Lab		20
15.	19AES0510	Basics of Python Programming Lab	New course	100
16.	19AES0303	Design Thinking and Product Innovation Lab	New course	100
17.	19APC0206	Power Systems - I	New course	100
18.	19APC0207	Electrical Machines - II	New course	100
19.	19APC0208	Control Systems		20
20.	19APC0209	Power Electronics		20
21.	19AMC9902	Constitution of India	New course	100
22.	19APC0210	Electrical Machines - II Lab		20
23.	19APR0202	Socially Relevant Projects (15 Hours /Sem)	New course	100
24.	19APC0213	Power Systems - II	New course	100
25.	19APC0214	Electrical Measurements and Instrumentation	New course	100
26.	19APC0216	Neural Networks and Fuzzy Logic	New course	100
27.	19APE0306	Renewable energy technologies	New course	100
28.	19AHE9902	Principles of Effective Public Speaking	New course	100
29.	19AHE9907	Optics	New course	100
30.	19AHE9909	Quantum Mechanics	New course	100
31.	19AMC9904	Professional Ethics and Human values	New course	100
32.	19APC0218	Electrical Measurements Lab	New course	100

  
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33.	19APR0203	Socially Relevant Projects (15 hours / semester)	New course	100
34.	19APC0219	Switch Gear and Protection		20
35.	19APE0201	Electrical Distribution Systems		20
36.	19APE0204	Power System Operation and Control		20
37.	19AHE9901	Technical Writing	New course	100
38.	19APC0221	Switchgear and Protection Lab	New course	100
39.	19APR0205	Socially Relevant Projects (15 hours / semester)	New course	100
		<b>Total no. of subjects in R15 of JNTUA syllabus</b>	<b>70</b>	
		<b>No.of subjects with &gt;= 20% change in AK19 syllabus</b>	<b>41</b>	
		<b>% of subjects with change in contents</b>	<b>58.87%</b>	

<b>% Change in syllabus from AK19 to AK20 Autonomous Regulations of B.Tech</b>				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1	20APC0201	Electrical Circuits - I	New course	100
2	20APC0203	Electrical Machines-I	New course	100
3	20APC0204	Electrical Circuits-I Lab	New course	100
4	20APC0205	Electrical Machines-I Lab	New course	100
5	20APC0206	Electrical Circuits-II	New course	100
6	20AHS9905	Universal Human Values	New course	100
7	20APC0209	Electrical circuits-II Lab	New course	100
8	20ASC0201	Simulation of circuits using PSPICE	New course	100
9	20APC0211	Electrical Machines-III	New course	100
10	20ASC0202	Introduction to Programming with MATLAB	New course	100
11	20ASC0203	Numerical techniques using MATLAB	New course	100
		<b>Total no. of subjects in AK19 of syllabus</b>	<b>77</b>	
		<b>No.of subjects with &gt;= 20% change in AK20 syllabus</b>	<b>11</b>	
		<b>% of subjects with change in contents</b>	<b>14.28%</b>	

  
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% Change in syllabus from R17 to AK19 Autonomous Regulations				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1	19DPC8202	Power Systems Dynamics-I	New course	100
2	19DPE8201	Renewable Energy Systems	New course	100
3	19DPE8202	Smart Grids	New course	100
4	19DPE8203	High Power Converter	New course	100
5	19DPE8204	Wind & Solar Systems	New course	100
6	19DPE8205	Electrical Power Distribution System	New course	100
7	19DPE8206	Mathematical Methods For Power Engineering	New course	100
8	19DPE8207	Pulse Width Modulation for PE Converters	New course	100
9	19DPE8208	Electric and Hybrid Vehicles	New course	100
10	19MBA0410	Research Methodology and IPR	New course	100
11	19DMC9901	English for Research Paper Writing	New course	100
12	19DMC0101	Disaster Management	New course	100
13	19DMC9902	Sanskrit for technical knowledge	New course	100
14	19DPC8203	Power System Steady State Analysis Lab	New course	100
15	19DPC8204	Renewable Energy Lab	New course	100
16	19DPC8205	Digital Protection of Power System	New course	100
17	19DPC8206	Power System Dynamics-II	New course	100
18	19DPE8209	Restructured Power Systems	New course	100
19	19DPE8210	Advanced Digital Signal Processing	New course	100
20	19DPE8211	Dynamics of Electrical Machines	New course	100
21	19DPE8212	Power Apparatus Design	New course	100
22	19DPE8213	Advanced Micro-Controller Based Systems	New course	100
23	19DPE8214	SCADA Systems and Applications	New course	100
24	19DPE8215	Artificial Intelligence Techniques	New course	100
25	19DPE8216	Power Quality	New course	100
26	19DMC9903	Value Education	New course	100
27	19DMC5801	Pedagogy Studies	New course	100
28	19DMC9905	Stress management by yoga	New course	100
29	19DMC9906	Personality Development through Life Enlightenment Skills	New course	100
30	19DPC8207	Power System Protection Lab	New course	100
31	19DPC8208	Power Quality Lab	New course	100
32	19DPC8209	Artificial Intelligence Lab	New course	100
33	19DPE8217	Power System Transients	New course	100
34	19DPE8218	FACTS and Custom Power Devices	New course	100
35	19DPE8219	Industrial Load Modeling & Control	New course	100
36	19DPE8220	Dynamics Of Linear Systems	New course	100
37	19DOE5801	Business Analytics	New course	100
38	19DOE9001	Industrial Safety	New course	100
39	19DOE9002	Operations Research	New course	100
40	19DOE2002	Project Management	New course	100
41	19DOE9004	Composite Materials	New course	100
42	19DOE2001	Waste to Energy	New course	100
		<b>Total no. of subjects in R17 of JNTUAsyllabus</b>	<b>25</b>	
		<b>No.of subjects with &gt;= 20% change in AK19 syllabus</b>	<b>42</b>	
		<b>% of subjects with change in contents</b>	<b>100</b>	

  
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**Need for revision of Curriculum:**

- Curriculum for engineering and technical courses across the country has been revamped by the All India Council for Technical Education (AICTE) to meet the demands of the industry.
- Credit requirements for award of Degree has been revised by AICTE and APSHE.
- Recommendations of National Education Policy 2020.
- Attain Programme Outcomes and PSOs.

**Initiatives through modifications in our Curriculum:**

- Removal of obsolete syllabus contents and courses has been done.
- Inclusion of more relevant subject contents and courses.
- Inclusion of more practical oriented learning through Skill oriented courses, skill advanced courses, socially relevant projects and Project work.
- Increasing the competency of the students by adopting to inclusion of mandatory MOOCS courses.
- Inclusion of mandatory Internships / Industrial trainings to enhance the job readiness of the outgoing Graduates.



Head of the Department  
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